

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-6 (canceled)

7. (Previously Presented) A breathable article according to claim 40, wherein the spacer members project from the second major face of the sheet and have a sufficient resilience that the perforations of the sheet remain open during normal use and the second side of the article is not normally pressed against the surface.

8. (Previously Presented) A breathable article according to claim 39, wherein the spacer members are discontinuous.

9. (Previously Presented) A breathable article according to claim 39, wherein the spacer members are continuous.

10. (Original) A breathable article according to claim 9, wherein the continuous spacer members extend across substantially all of at least one side of the sheet.

11. (Previously Presented) A breathable article according to claim 9, wherein the spacer members comprise a network of ribs on the respective side or sides of the sheet.

12. (Original) A breathable article according to claim 11, wherein an air-permeable sheet cover member extends between adjacent ribs and is secured thereto to enclose an air space between the ribs.

13. (Original) A breathable article according to claim 12, wherein the air-permeable sheet cover member comprises a water absorbent fabric.

14. (Original) A breathable article according to claim 12, wherein the air-permeable sheet cover member comprises a waterproof but vapour-permeable membrane.

15. (Previously Presented) A breathable article according to claim 39, wherein the sheet further includes a hollow depression or chamber provided in the first major face of the sheet in the region of each perforation.

16. (Original) A breathable article according to claim 15, wherein the depression or chamber is so configured and arranged as to permit air passing from the first to the second side of the article to accumulate in the depression or chamber under increased vapour pressure prior to passing out to the second side of the article.

17. (Previously Presented) A breathable article according to claim 15, wherein at least one of the depressions or chambers is associated with more than one perforation.

18. (Previously Presented) A breathable article according to claim 15, wherein each dome projection corresponds with a hollow depression or chamber of the first major face of the sheet.

19. (Previously Presented) A breathable article according to claim 39, when permanently or releasably affixed to the surface.

20. (Previously Presented) A breathable article according to claim 39, being a cushioning or lining article for locating between a person or animal and a surface selected from the surfaces of apparel and clothing and portions thereof, seats and portions thereof, wheelchairs and portions thereof, headwear, footwear, body protectors, body armour, sports shields, bedding, upholstery coverings, orthopaedic casts, orthopaedic supports, orthopaedic hard braces, and other articles against which the body of the person or animal, or a portion thereof, can be compressed in use.

21. (Previously Presented) A breathable article according to claim 39, being a medical or veterinary dressing.

Claims 22-26 (Canceled)

27. (Previously Presented) A breathable fabric according to claim 41, wherein the spacer members project by a distance which is substantially the same across the relevant major face of the sheet.

28. (Previously Presented) A breathable fabric according to claim 41, wherein the spacer members are discontinuous.

29. (Previously Presented) A breathable fabric according to claim 41, wherein the spacer members are continuous.

30. (Original) A breathable fabric according to claim 29, wherein the continuous spacer members extend across substantially all of at least one side of the sheet.

31. (Previously Presented) A breathable fabric according to claim 29, wherein the spacer members comprise a network of ribs on the respective side or sides of the sheet.

32. (Original) A breathable fabric according to claim 31, wherein an air-permeable sheet cover member extends between adjacent ribs and is secured thereto to enclose an air space between the ribs.

33. (Original) A breathable fabric according to claim 32, wherein the air-permeable sheet cover member comprises a water-absorbent fabric.

34. (Original) A breathable fabric according to claim 32, wherein the air-permeable sheet cover member comprises a waterproof but vapour-permeable membrane.

Claims 35-37 (Canceled)

38. (Previously Presented) A breathable fabric according to claim 41, wherein each dome projection corresponds with a hollow depression or chamber in the first major face of the sheet.

39. (Currently Amended) A breathable article for disposition in use between part of a human or animal body and a surface, said article comprising a sheet having a first side directed in use towards said body part and a second side directed in use towards said surface, wherein said sheet includes:

a plurality of first chambers open to the first side and a plurality of second chambers open towards the second side, each of the first chambers being in alignment with an associated one of the second chambers;

a boundary wall is common to the aligned first and second chambers and is defined by an outwardly-extending dome projection providing a concavity directed towards said first side and a convexity directed towards said second side, said sheet boundary walls having perforations provided therethrough, the first and second sides being in air flow communication with each other through said perforations and each of said perforations defining an internal chamber having an outwardly-extending dome projection providing a concavity directed toward said first side and to surround an adjacent portion of the perforation

wherein said dome projection being projections are flexible and providing a resilient restoring force against opening of said portion of the perforation perforations due to increase in pressure within said first chambers chamber, and

wherein said second side has having spacer members associated therewith and located laterally away from the dome projections to permit flexure of the dome projections into the second chamber when said article is in contact with said surface.

40. (Previously Presented) A breathable article according to Claim 39, wherein the spacer members project by a distance that is substantially the same across said second side of the sheet to permit the article to conform in use to the shape of the person or animal or the surface.

Claim 41 (Canceled)

42. (Previously Presented) A breathable article according to claim 39 wherein said sheet comprises an elastomeric material.

43. (Previously Presented) A breathable article according to claim 42 wherein the resilience of said spacer members differs from the resilience of the outwardly extending dome projections.

44. (Previously Presented) A breathable article according to claim 42 wherein said elastomeric material comprises foamed neoprene.

Claims 45-47 (Canceled)

48. (Currently Amended) A breathable article for disposition in use between part of a human or animal body and a surface, said article comprising a sheet having a first side directed in use towards said body part and a second side directed in use towards said surface, said sheet having perforations provided therethrough, the first and second sides being in air flow communication with each other through said perforations and each of said perforations ~~defining~~ interconnecting an internal chamber and an external chamber, each said internal chamber having a dome providing a concavity directed toward said first side and to surround an adjacent portion of the perforation, said dome being flexible and providing a resilient restoring force against opening of said portion of the perforation due to increase in pressure within said chamber, said second side having spacer members associated therewith that, as compared to the flexible domes, are rigid and are located laterally away from the domes in an encompassing manner to permit and not to inhibit flexure of the domes when said article is in contact with said surface.

49. (Currently Amended) A breathable fabric comprising a sheet having first and second major faces and formed of a substantially impermeable material having perforations provided therethrough, each of said perforations ~~defining~~ interconnecting an external chamber and an internal chamber having a dome providing a concavity directed toward said first major face and to surround an adjacent portion of the perforation, said dome being flexible and providing a resilient restoring force against opening of said portion of the perforation due to increase in pressure within said chamber, characterised in that there is further provided a plurality of spacer members which

- (a) as compared to the flexible domes, are rigid,
- (b) are located laterally away from the dome-like projections and encompass them,
- (c) project from said second major face between perforations of the sheet such as to permit and not to inhibit flexure of the domes when said article is in contact with a surface.

50. (New) A breathable article for disposition in use between part of a human or animal body and a surface of a compressing object, the breathable article comprising:

a sheet having;

a first surface defining a first flexible plane, wherein the first surface is directed in use towards the body part;

a second surface defining a second flexible plane, wherein the second surface is directed in use towards the surface of a compressing object;

a plurality of flexible dome projections formed between the first surface and the second surface and each having a perforation formed therethrough, the plurality of dome projections defining a concavity directed in use towards the first surface; and

a plurality of spacers positioned along the second surface and extending beyond the second flexible plane, the plurality of spacers being directed towards the surface of a compressing object;

wherein each of the plurality of flexible dome projections and the plurality of spacers cooperate to define a first cavity directed in use towards the body and a second cavity directed in use towards the surface of a compressing object, each of the plurality of flexible dome projections being adapted to deform resiliently and thereby pump fluid between the first cavity and the second cavity through the perforation.

51. (New) The breathable article according to claim 50, wherein the plurality of spacers project from the second surface and have a sufficient resilience that the perforations formed through each of the plurality of dome projections remains open during normal use and the compressing object is not normally pressed against the second surface.

52. (New) The breathable article according to claim 50, wherein the plurality of spacers are discontinuous.

53. (New) The breathable article according to claim 50, wherein the plurality of spacers are continuous.

54. (New) The breathable article according to claim 53, wherein the plurality of continuous spacers extend across substantially all of the second surface.

55. (New) The breathable article according to claim 53, wherein the plurality of continuous spacers comprise a network of ribs on the second surface.

56. (New) The breathable article according to claim 55, wherein an air-permeable cover member extends between adjacent ribs and is secured thereto to enclose an air space between the ribs.

57. (New) The breathable article according to claim 56, wherein the air-permeable sheet cover member comprises a water absorbent fabric.

58. (New) The breathable article according to claim 56, wherein the air-permeable sheet cover member comprises a waterproof but vapour-permeable membrane.

59. (New) The breathable article according to claim 50, wherein the plurality of flexible dome projections cooperate in use with the body and the compressing object to define a high pressure region within the first cavity and a low pressure region within the second cavity to pump fluid between the first cavity and the second cavity.

60. (New) The breathable article according to claim 50, wherein each of the plurality of flexible dome projections is associated with more than one perforation.

61. (New) The breathable article according to claim 50, being a cushioning or lining article for locating between a person or animal and a surface selected from the surfaces of apparel and clothing and portions thereof, seats and portions thereof, wheelchairs and portions thereof, headwear, footwear, body protectors, body armour, sports shields, bedding, upholstery coverings, orthopaedic casts, orthopaedic supports, orthopaedic hard braces, and other articles against which the body of the person or animal, or a portion thereof, can be compressed in use.

62. (New) The breathable article according to claim 50, being a medical or veterinary dressing.

63. (New) The breathable fabric according to claim 50, wherein the plurality of spacers extend beyond the second flexible plane by a distance which is substantially the same across the second surface of the sheet.

64. (New) A breathable article for disposition in use between part of a human or animal body and a surface of a compressing object, the breathable article comprising:

a sheet having a plurality of perforations formed therein, the perforations fluidly connecting a first sheet surface to a second sheet surface, wherein the first sheet surface is directed in use towards the body part;

a plurality of flexible dome projections formed between the first sheet surface and the second sheet surface and aligned such that each of the plurality of perforations is coincident with an apex of an associated one of the plurality of flexible dome projections, the plurality of flexible dome projections forming a first cavity relative to the first sheet surface; and

a plurality of spacers positioned along the second sheet surface and extending away from the second surface and forming a second cavity relative to the second sheet surface;

wherein each of the plurality of flexible dome projections flexes between a first position within the first cavity and a second position within the second cavity to pump fluid therebetween.